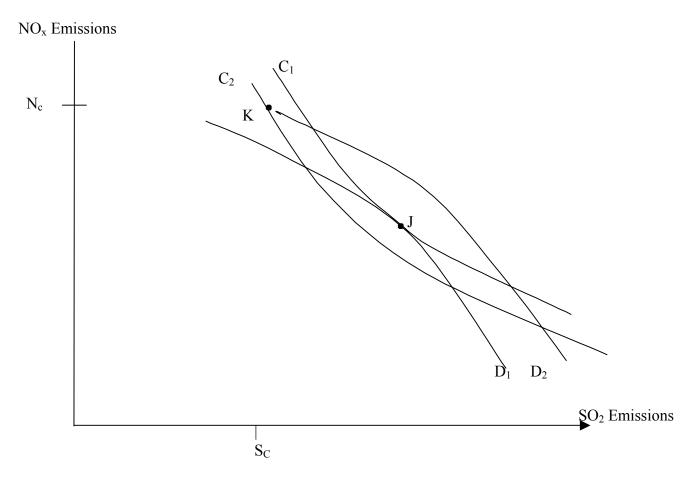


S.556 Emissions Caps

Figure 1

Note: The curve that goes through the H.R.1256 emissions cap represents the set of NO_x and SO₂ emissions where compliance costs are approximately constant, based on EIA's estimates of SO₂ and NO_x permit prices for the emissions reductions in an earlier version of S.556, which was identical to H.R. 1256. Effective dates for the bills differ slightly. Emissions allowance caps for S.556, which are very similar to those in H.R. 1256, would be effective in 2008; the NO_x cap in S.588 would begin in 2004 and grow until 2007; H.R. 1256 would be effective in 2007, while the Administration's Clear Skies proposal would take effect in 2008 and specify increasingly stringent caps for 2010 and 2018. Banking enables emissions to remain above allowance caps until the bank is exhausted.

Figure 2
Improved Air Quality and Reduced Compliance Costs with NO_x-SO₂ Trading



4.5 \$10.6 Billion 4 3.5 NO_x (Million Tons) 3 \$10.7 Billion Clear Skie 2010 2.5 2 Clear Skies 1.5 2018 \$11.8 Billion 1 Iso-damage Line 0.5 0 0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 SO₂ (Million Tons)

Figure 3
NOx-SO2 Permit Trading Saves More than \$1 Billion Annually

Note: The diamonds labeled Clear Skies, "♠", represent emissions in 2010 and 2018 under the Bush Administration's proposal. The squares representing points B, J and K refer to annual levels of NO_x and SO₂ emissions averaged over the years 2010 to 2020. The iso-cost curves going through these three points are the sets of NO_x and SO₂ emissions where annual control costs are constant at \$11.8 billion, \$10.7 billion and \$10.6 billion respectively. The slopes of the various iso-cost curves at the points B, J and K represent the incremental costs of controlling SO₂ relative to the incremental costs of controlling NO_x. The iso-damage line represents the combination of NO_x and SO₂ emissions expected to offer the same protection to health and the environment as point B. It assumes that one ton of SO₂ is as damaging as 3 tons of NO_x. Since points B, J and K all offer the same level of protection, but differ by at least \$1 billion annually in control costs, allowing firms collectively to increase NO_x emissions in exchange for additional SO₂ reductions, should save at least \$1 billion annually without lowering environmental protection.